# Foreword: A World Apart

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The South Pacific Island of New Guinea and the adjoining archipelago called ‘Wallacea’ - named in honor of the eminent 19th-century British naturalist Alfred Russell Wallace - are truly a world apart. Alfred Wallace was, of course, the first to identify the then-mysterious biogeographic disjunction separating the islands of Southeast Asia on the one hand, and those of Wallacea, New Guinea and Australia on the other.

Today we know that this disjunction - ‘Wallace’s Line’ - results from the vastly different biogeographic histories of the two regions. Via the Sunda Shelf, the islands of Southeast Asia are closely aligned biologically with the Asian mainland, as they have periodically been in direct contact with the mainland during the Ice Ages, when sea levels plummeted. As a result, they support a distinctively northern, Laurasian biota - one dominated, for instance, by primates, elephants, cats and other placental mammals, as well as by many other northern animal and plant groups.

Though barely a stone’s-throw away, the islands of Wallacea and Australasia are separated from the Sunda Shelf by a plunging deep-sea trench. This biogeographic incision has precluded colonization by many groups of northern organisms, and as a result Wallacea and Australasia have largely retained their distinctive Gondwanic character - one dominated by a marsupial fauna that diversified spectacularly over many millions of years in biogeographic isolation. As the Australasian tectonic plate (technically termed the ‘Indo-Australian plate’) drifted closer to Southeast Asia, several northern groups, including bats and rodents, did eventually arrive by flying or overwater dispersal. The result is a complex and unique melange of biodiversity - one featuring tree-kangaroos and cuscuses as well as the splendid birds of paradise and ‘living fossil’ monotremes.

Today, the islands of New Guinea and Wallacea sustain some of the biologically richest real estate on Earth - and some of the most imperilled. It is also a region where biological mysteries abound, where much biodiversity has yet to be scientifically documented. For instance, many botanists believe that New Guinea sustains 25000 to 30000 plant species in total, but to date only around 13500 species have been scientifically described. Field surveys in even relatively well-collected areas are still turning up many undescribed species.

New Guinea and Wallacea are also are homes to a remarkable diversity of peoples. New Guinea alone supports over a thousand distinctive linguistic groups - more than a third of all living languages on Earth. This remarkably cultural diversity is a largely by-product of the steep and dissected topography of the island, which tends to promote social isolation. New Guinea today features towering mountain ranges, plunging valleys and frequent earthquakes and volcanism - artefacts of the slow but violent collision ongoing between the Australian tectonic plate and those of the northerly Asian and Pacific regions.

Edited by Dmitry Telnov, this new book - the first in a series on ‘Biodiversity, Biogeography and Nature Conservation in Wallacea and New Guinea’ - is a trailblazing effort to initiate a new era in biological research and nature conservation. Its scope encompasses New Guinea, Wallacea and thousands of smaller nearby islands, and it includes cutting-edge contributions from an array of outstanding biogeographers and biologists. It is an authoritative and seminal work, one destined to be invaluable both to professional scientists and resource managers as well as amateur naturalists and conservationists. It is a vital contribution to our growing knowledge of one of the most intriguing, important and understudied regions on Earth.